

U.S. Environmental Protection Agency

40 CFR Part 80

[FRL -- ]

Regulation of Fuels and Fuel Additives: Modifications to  
Standards and Requirements for Reformulated and Conventional  
Gasoline

AGENCY: Environmental Protection Agency (EPA)

ACTION: Final Rule

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**SUMMARY:** Through the 1990 amendments to the Clean Air Act (CAA), Congress mandated that EPA promulgate regulations requiring that gasoline sold in certain areas be reformulated to reduce vehicle emissions of toxic and ozone-forming compounds. The EPA published rules for the certification and enforcement of reformulated gasoline (RFG) and provisions for non-reformulated or conventional gasoline on February 16, 1994.

Based on experience gained since the promulgation of these regulations, on July 11, 1997, EPA proposed a variety

of changes to the regulations relating to emissions standards, emissions models, compliance related requirements and enforcement provisions. Today's rule finalizes certain of the changes proposed on July 11, 1997. This final rule adopts several revisions relating to use of the Complex Model, which is required for demonstrating compliance with the RFG standards and the anti-dumping standards for conventional gasoline beginning on January 1, 1998. In addition, today's rule finalizes provisions that modify the affirmative defenses for truck carriers of motor vehicle fuel. Finally, this rule deletes the NOx per-gallon minimum standards for RFG and increases the number of gasoline quality surveys, as a more cost-effective way to ensure that each area covered by the RFG program receives the full environmental benefits of the NOx average standards in Phase I and II of the program. EPA will take final action on the remainder of the provisions proposed on July 11, 1997, at a later date.

The emissions benefits achieved from the RFG and conventional gasoline programs will not be reduced as a result of this final rule.

**DATES:** The effective date of this rule is January 1, 1998.

**ADDRESSES:** Materials relevant to this FRM are contained in

Public Docket No. A-97-03, Waterside Mall (Room M-1500), Environmental Protection Agency, Air Docket Section, 401 M Street, S.W., Washington, D.C. 20460. Materials relevant to the final rule establishing standards for reformulated gasoline and anti-dumping standards for conventional gasoline are contained in Public Dockets - A-92-01 and A-92-12, and are incorporated by reference.

**FOR FURTHER INFORMATION CONTACT:**

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**SUPPLEMENTARY INFORMATION:**

Regulated Entities

Regulated categories and entities affected by this action include:

<u>Category</u>	<u>Examples of regulated entities</u>
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Industry	Refiners and importers of motor vehicle fuel. Motor vehicle fuel tank truck carriers.
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This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could be potentially regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria of Part 80, Subparts A, B, D, and E, of title 40 of the Code of Federal Regulations. If you have questions regarding applicability of this action to a particular entity, consult the person listed in the preceding "FOR FURTHER INFORMATION CONTACT" SECTION.

The preamble and regulatory language are also available electronically from the EPA Internet Web site. The official Federal Register version is made available on the day of publication on the primary Internet site listed below. The EPA Office of Mobile Sources also publishes these notices on the secondary Web site listed below.

Internet (Web)

<http://www.epa.gov/docs/fedrgstr/EPA-AIR/>

(either select desired date or use Search feature)

<http://www.epa.gov/OMSWWW/>

(look in What's New or under the specific rulemaking topic)

EPA believes this is sufficient lead time for regulated parties to implement the changes adopted here, as these noncontroversial changes are designed to increase the flexibility provided to parties under the regulations and to provide provisions necessary for demonstrating compliance with the standards under the Complex Model. Although this final rule includes some new requirements, these requirements are reasonable and necessary to provide the increased flexibility also included in this rule. EPA notes that the general requirement in 5 U.S.C. 553(d) of the Administrative Procedure Act (APA), concerning publication or service of a substantive rule not less than 30 days prior to its effective date, does not apply here. CAA § 307(d)(1) provides that § 553 of the APA does not apply to promulgation or revision of any regulation pertaining to fuels or fuel additives under section 211 of the CAA. Even if section 553(d) of the APA were to apply, there is good cause under section 553(d)(3) to provide less than 30 days notice, for the reasons noted above.

The remainder of this preamble, which explains the basis and purposes of the regulatory changes finalized today, is organized into the following sections:

- I. Corrections to Complex Model (§ 80.45)
- II. NOx Per-Gallon Minimum Standards (§ 80.41)(d) and (f); § 80.68(b)(1)(iv))
- III. Truck Carrier Defenses (§ 80.79(c)(3); § 80.2(ss); § 80.28(g)(1)(iii) and § 80.30(g)(1)(i))
- IV. Closely Integrated Facilities (§ 80.91(e))
- V. Standards Applicable to Refiners and Importers of Conventional Gasoline (§ 80.101)
- VI. Environmental and Economic Impacts
- VII. Public Participation
- VIII. Regulatory Flexibility Act
- IX. Submission to Congress and the General Accounting Office
- X. Executive Order 12866
- XI. Paperwork Reduction Act
- XII. Unfunded Mandates Act
- XIII. Statutory Authority

**I. Corrections to Complex Model (§ 80.45)**

§ 80.45(c)(1)(iv)(B)	Corrects several small typographical errors in both the Phase I and Phase II equations.
§ 80.45(c)(1)(iv)(D)( <u>12</u> )	Corrects typographical error by changing "(E300 X 72 percent)" to "(E300 - 72 percent)."
§ 80.45(c)(1)(iv)(D)( <u>13</u> )	Corrects typographical error by changing Phase I coefficients to Phase II coefficients, i.e. change "80.32 + (0.390 X ARO)" to "79.75 + (0.385 X ARO)."
§ 80.45(d)(1)(iv)(B)	Corrects typographical errors to the equation.
§ 80.45(f)(1)(ii)	Corrects the entry for aromatics "acceptable range" to read "0.0 - 55.0 volume percent." This corrects a typographical error in the July 20, 1994 Direct Final Rule (59 FR 36961). The correct entry was included in the RFG final rule published on February 16, 1994 (59 FR 7826).

## II. Elimination of NOx Per-Gallon Minimum Standards (§

80.41(d)<sup>1</sup> and (f); § 80.68(b)(1)(iv))

In the final regulations establishing the RFG program (59 FR 7716 (February 16, 1994)) the Agency established both

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<sup>1</sup>In addition to deleting the NOx per-gallon minimum standards for averaged RFG in the chart in § 80.41(d), this rule revises the chart to replace " $\leq 32.6$ " for VOC-Control Region 1 per-gallon minimum reduction with " $\geq 32.6$ ". This corrects a typographical error.

average standards for NOx reductions and associated minimum per-gallon standards <sup>2</sup> for such reductions (separate standards were applied to VOC-controlled summertime gasoline and non-VOC-controlled winter gasoline). The standards set up for both the Simple Model and Phase I Complex Model (applicable in 1995 through 1999) were designed to hold NOx emissions at baseline levels, while the Phase II standards (applicable beginning in 2000) added a more stringent standard for summertime NOx reductions.

The averaging minimum standard in Phase II requires that each gallon (batch) of RFG in the high ozone season has at least a 3% reduction from the baseline; the corresponding Phase I standard holds any increase over baseline for a batch to 2.5%. Less stringent averaging minimum standards apply outside of the high ozone season in Phase II. These minimum standards were not put in place to provide any incremental environmental benefit beyond that provided by the average standard, but rather to ensure an even distribution of program benefits from area to area and/or through time. An additional but secondary objective of the

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<sup>2</sup> These two types of standards, both applying to refineries that elect to comply by averaging, should not be confused with the per-gallon standard, which applies to refineries that elect not to average their compliance over a year, but rather to make gasoline that all (each gallon) meets a fixed standard. The latter approach to compliance will likely not be selected by most refiners for practical reasons having to do with the inherent variability in NOx quality of gasoline from batch to batch.



averaging minimum standard was to augment the detectability of non-RFG gasoline being illegally sold in RFG areas.

### The Proposal

In the July 11, 1997 NPRM EPA proposed to eliminate the minimum averaging standards for NO<sub>x</sub> in both phases of the program and to use an augmented RFG survey program to guard against any possible undesirable environmental effects of that action. The reasons for wanting to eliminate these standards are discussed at some length in the NPRM, but they center on avoiding the imposition of substantial additional RFG production costs on the industry without providing additional environmental benefits over and above those provided by the relevant average standard, where the purposes of the per-gallon minimum can also be served by the RFG surveys.

At the time of the 1994 final rule, data did not exist to adequately assess the variability, within refineries' output, of NO<sub>x</sub> quality or the factors that affect it across all of the batches of gasoline produced in a year. The final rule did not take into account extra costs resulting from compliance with the minimum standards. Such costs, which would likely be sharply higher in Phase II, could be expected to elevate the price of RFG relative to that of

conventional gasoline and might thus endanger public acceptance of Phase II RFG.

The NPRM discussed an expanded RFG survey program, along with the fungibility of the gasoline distribution system, as providing adequate protection against the kind of geographical and/or temporal unevenness of distribution of program benefits that the NOx averaging minimum standards were intended to guard against. The proposal included an increase of 20 in the initial number of RFG surveys per year before adjustments have been made for the gallonage of opt-in areas and that of areas that may have failed surveys in prior years. The effect of these adjustments, given the current set of opt-in areas and recent survey failures for oxygen, would be to almost double the initial 20-survey increase when computing the number of week-long surveys to be conducted in the course of a year. The resulting increase brings the total number of surveys in a year to more than 150. The increase in survey coverage was intended to permit more careful scrutiny of gasoline quality across the geographical areas covered by the program (especially the opt-in areas) and to strengthen the ability of the surveys to deter environmentally harmful uses of the averaging flexibility, especially in areas supplied by a limited group of refineries.

## Comments on the Proposal

Industry commenters were almost unanimous in supporting the proposed elimination of the NOx minimums, citing reasons that were mostly similar to those given in the proposal. Most frequently, the argument was that the minimums, especially in Phase II, would raise the costs of making RFG above the level calculated in the 1994 Regulatory Impact Assessment and do so without securing any additional environmental benefit. The comments tended to confirm the conclusions EPA analysts had reached in the course of detailed interviews with a small number of refiners<sup>3</sup>, namely that refiners would comply with the minimum standards mostly by using a set of strategies that are not capital-intensive and do not result in NOx reductions in excess of those required by the average standard.<sup>4</sup>

The only comments received from a non-industry source

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<sup>3</sup>These interviews and the business confidential information disclosed to EPA in them were discussed at some length in the July 11, 1997 NPRM. See 62 FR 37343.

<sup>4</sup> Some general examples of the approaches identified in these interviews as likely to be used to bring sub-minimum batches above the standard include: finding another use for the poor NOx quality gasoline or its components (shifting it to conventional gasoline, if that can be done without violating anti-dumping standards, or shifting it to other products) and buying conforming RFG on the spot market to take its place; reblending the poor NOx quality batches with clean blendstocks purchased from the outside to make them conform to the minimum; or simply reducing RFG production.

came from the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO). These comments generally agree with the appropriateness of eliminating the NOx minimums, primarily as a way of strengthening the RFG program by improving its cost-effectiveness. They express the belief, though, that a strengthened survey program is needed to substitute for protections that would have been provided by the minimum standards for NOx. They suggest some specific ways to strengthen the surveys as discussed below.

Almost all of the comments received recognized the importance of the RFG survey program in guarding against uneven distribution of NOx benefits in the absence of the minimum standards. All of the industry comments that addressed the topic cited the surveys as the mechanism for providing the needed insurance against uneven distribution. Commenters disagreed, though, on the question of whether the currently prescribed survey program is adequate to serve this purpose in the absence of the NOx minimum standards; the American Petroleum Institute (API) and one other commenter supported the proposed increase in the number of surveys, while the National Petroleum Refiners Association and one other industry commenter questioned the need for the additional surveys, especially in light of the increased

sampling involved in each survey as a result of the change to the complex model. Of the latter comments, one suggested that if the additional surveys were imposed, they should be split evenly between summer and winter seasons. API's comments took note of the fact that the RFG final rule did not prescribe summertime NOx surveys for Phase II of the program and supported the addition of such surveys, provided that the NOx minimum standards are eliminated.

STAPPA/ALAPCO's comments on the survey program made a number of suggestions aimed at strengthening the surveys' ability to take over the functions that would have been performed by the NOx minimum standards. They recommend weighted representation of octane grades <sup>5</sup>, concentration of additional surveys in the high ozone season, and a greater emphasis on smaller, isolated RFG markets that, on the simple basis of gasoline volume, would tend to be neglected. They would like for EPA to work closely with stakeholders on survey questions, and support imposition of a severe penalty (in the form of a ratcheted standard) where NOx surveys are failed.

EPA believes that, without the NOx minimum standards, the survey program would be key to ensuring that uneven

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<sup>5</sup> Careful stratification of the sample for each survey to accurately represent octane grades as well as station gasoline sales volume levels within each RFG area is already a feature of the survey design.

distribution of gasoline NOx quality did not result in air quality problems. Since the most important consideration in regulating NOx is its contribution to the formation of ground-level ozone, the Agency must be sure that survey coverage during the high ozone season is sufficiently intense to both deter misuse of averaging and to detect it if it should occur. To this end, the Agency believes that the increase in number of surveys proposed in the NPRM is necessary to ensure adequate coverage of opt-in areas. The suggestion of one commenter that the additional surveys should be split between summer and winter would, if implemented, defeat the purpose behind the increase, even though it would reduce the increase in survey costs brought about by both the additional surveys and the increase in the size of each survey needed to meet precision requirements for NOx.<sup>6</sup> EPA agrees with STAPPA/ALAPCO regarding the greater attention that must be paid to the distribution

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<sup>6</sup> The increase in the sampling requirements of each survey (and survey series), while substantial in magnitude, is driven by the heterogeneity of the most important parameters in the NOx emissions equation--olefins and, especially, sulfur. This increase, necessary to maintain the precision of the mean estimates of each 7-day "snapshot" of gasoline quality, nevertheless does not contribute at all to the number of such "snapshots" taken of gasoline NOx quality during the crucial summer months. The adequacy of the survey program to perform the function originally intended for the NOx minimum depends entirely on the Agency's ability to spread those individual survey "snapshots" over both the geographical areas covered by the program and the months of the high ozone season.

system when allocating surveys. Isolated areas, while possibly not large in population, are more vulnerable to variability in the NOx quality of gasoline shipments and should receive somewhat disproportionate coverage by the survey program. The reverse is also true to some extent--because of the severity and scope of the ratchet provisions, areas that share in a large fungible supply of gasoline are protected with some redundancy, a fact that could be used to provide isolated areas with greater protection when allocating surveys. To summarize regarding the surveys, in order to make elimination of the minimum standards appropriate, EPA believes that the survey program must be augmented so it will adequately perform the function previously performed by the NOx per-gallon minimums.

The RFG final rule did not provide for summertime NOx surveys in Phase II of the program on grounds that the per-gallon minimum standards (established under section 211(c) authority) were more than adequate to satisfy the requirements of section 211(k) of the CAA ( see 57 FR 7774). With the minimum per-gallon standard for Phase II summertime eliminated, the surveys become necessary, as pointed out in API's comments, and will be required as part of today's action. EPA sees a summertime NOx survey program in Phase II as necessary to replace the protections that were provided by the NOx minimum standards.

## Summary and conclusions regarding NOx minimum standards

After a careful review of available data on the NOx quality of gasolines produced under the simple model and study of the variability of the major causes of high NOx emissions (sulfur and olefins), EPA is convinced that the per-gallon minimums for NOx would impose severe limitations on refineries' ability to make flexible use of averaging in production of complex model gasoline. In consequence, refiners' costs for compliance would exceed the cost of meeting the average standard. Rather than respond to this situation with capital investments that might actually further improve air quality, EPA believes that refiners are more likely to respond with costly and environmentally unproductive strategies for dealing with high NOx batches. The added cost for making RFG would be an unnecessary burden. EPA is thus acting today to eliminate the averaging per-gallon minimum standards for NOx reduction in both Phase I and Phase II of the RFG program.

As indicated in the NPRM, EPA believes that the geographical and temporal distribution objective that was the chief reason for the NOx minimum standards can be achieved by the RFG survey program at lower cost to refiners and the public and without sacrificing air quality. Accordingly, in today's action EPA is increasing the number



of surveys in the initial schedule by 20, as proposed, and requiring that week-long NOx surveys be conducted in the summertime in Phase II, as was not previously required. EPA believes that the intensified survey coverage, if carefully allocated, coupled with the wide-ranging and costly consequences of NOx survey failures, will motivate refiners to avoid actions that could compromise air quality in areas covered by the RFG program.

This final rule also makes minor changes to other sections of the regulations to delete references to the NOx per gallon minimum standards and reflect the additional survey requirements. These changes affect the following sections: § 80.41(m); § 80.67(e)(4); § 80.68(c)(3); §§ 80.68(c)(13)(iv)(H) and (L)); § 80.77(g)(2)(iv)(B); § 80.78(a)(1)(v)(C); and § 80.79(c)(1). In addition, this final rule modifies § 80.41(m) to clearly indicate that its provisions apply to failure of either a NOx survey or failure of a NOx survey series. This change conforms § 80.41(m) to other provisions of the regulations referring to survey activity involving NOx, such as: § 80.68(b)(4)(ii) describing the consequences of failing to carry out an approved survey program; § 80.68(c)(4)(ii) defining a NOx survey series; and § 80.68(c)(10) describing the conditions giving rise to failure of a NOx survey or survey series.

**III. Truck Carrier Defenses (§ 80.79(c)(3); § 80.2(ss);  
§ 80.28(g)(1)(iii) and § 80.30(g)(1)(i))**

Section 80.79(b) specifies the defenses for violations of the prohibited activities under the reformulated gasoline program. Section 80.79(b)(1) states that a party, who is presumed liable for a violation, can avoid liability if it can show: (1) that it did not cause the violation, (2) the existence of appropriate product transfer documents for the gasoline in question, and (3) that it conducted an appropriate quality assurance sampling and testing program.

These defenses apply to all regulated parties, including carriers. In addition, under § 80.79(b)(1)(iii)(B), a carrier may rely on a properly conducted quality assurance sampling and testing program conducted by another party. Carrier is defined at 40 CFR § 80.2(t) as a party who stores or transports gasoline without taking title to the gasoline.

For one category of carriers - truck carriers - sampling and testing may not always be the most appropriate form of quality assurance. The purpose of a quality assurance requirement is, first and foremost, to institutionalize preventive measures as the best way to detect and avoid violations. The most typical role of truck

carriers in the gasoline distribution system is to transport gasoline from a terminal to a retail outlet or wholesale consumer. Most violations caused by truck carriers result when an inappropriate type of gasoline is delivered. For example, a truck carrier would have caused a violation if gasoline designated as conventional is delivered by the carrier to a retail outlet located in a reformulated gasoline covered area. The most appropriate quality assurance for a truck carrier to implement to avoid this type of violation would be driver training on the proper types of gasoline to deliver, and management oversight of product transfer documents to ensure the proper type of gasoline has been delivered.

It is EPA's understanding that truck carriers almost always load gasoline into empty truck compartments. To the extent this is true, it would be very unlikely the carrier could be responsible if the gasoline loaded into the truck failed to meet a regulated standard, such as benzene or oxygen content. As a result, sampling and testing of gasoline obtained from a truck compartment would not be particularly effective for detecting violations caused by the carrier. In addition, EPA has received comments from industry regarding the practicability of drawing samples from truck compartments during the loading process, or subsequent to loading. These comments conclude that the

technical aspects of collecting gasoline samples from truck compartments make such sampling difficult, but not impossible. For example, the sampler normally would be required to climb onto the top of the truck trailer in order to gain access to the compartment lid, which could be difficult particularly in adverse weather conditions.

As a result, EPA proposed to modify the defense elements under § 80.79 as they pertain to truck carriers to state that, instead of sampling and testing, an oversight program by a truck carrier may consist of a program to monitor compliance with the requirements related to gasoline transport or storage, such as a program to properly train truck drivers and review product transfer documents to ensure that the proper type of gasoline is delivered. In addition, EPA proposed to add a definition of tank truck carrier to § 80.2.

EPA did not propose a similar change to the reformulated gasoline defense provisions for carriers other than truck carriers, such as pipelines, barge operators, or for-hire terminals. EPA believes carriers in these other categories are better able to collect gasoline samples, and samples of the gasoline being transported or stored by these categories are collected for commercial reasons on a routine basis in the normal course of business. Nevertheless, EPA requested comments regarding whether the changes proposed

for truck carriers should also be applied to other types of carriers.

EPA also proposed similar changes to the defense provisions for truck carriers in the case of violations of the volatility requirements at § 80.28(g)(1), and violations of the diesel sulfur requirements at § 80.30(g)(1). The rationale for changing the volatility and diesel sulfur defense provisions for truck carriers is the same as is discussed above for reformulated gasoline.

EPA received no comments on the proposed modifications to the defense elements for truck carriers at §§ 80.28, 80.30, and 80.79, or the definition of tank truck carrier at § 80.2, and these provisions are being finalized as proposed.

#### **IV. Closely Integrated Facilities (§ 80.91(e))**

Section 80.91(e)(1)(i) of the reformulated gasoline regulations provides for determination of a single set of baseline fuel parameters, upon petition and approval, for two or more facilities that are geographically proximate to each other, yet not within a single refinery gate, and whose 1990 operations were significantly interconnected in 1990. While the existing provision permits EPA to set a single

baseline that would then apply for each of several refineries, it does not permit these "closely integrated facilities" to be grouped together for all compliance purposes (including registration, record keeping and reporting). Rather, the provision allows a single baseline to be set for each facility it represents, and sections 80.41(h) and 80.101(h) require that each refinery comply with this baseline separately, except where authorized to group refineries for compliance purposes. <sup>7</sup> Similarly, section 80.91(e)(1)(ii) permits EPA to set a single baseline for a blending facility which received 75 percent of its 1990 blendstock from a single refinery, or from one or more refineries owned by the same refiner and that are part of an aggregate baseline.

EPA proposed to amend the RFG and anti-dumping regulations by adding section 80.91(e)(1)(iii), which would require facilities that have been determined to be closely integrated and granted a single baseline by EPA to demonstrate compliance with all RFG and anti-dumping requirements as if they were one facility. Furthermore, the closely integrated facilities would have a single registration and would file a single set of compliance

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<sup>7</sup> Combined reports may be submitted for compliance with RFG baseline-related parameters (sulfur, olefin, and T90) and anti-dumping. Other reports must be filed by each facility.

reports. EPA believes that this change will reduce costs (including paperwork costs) to industry without any significant negative environmental impact. EPA received no comments on this section and it is being promulgated as proposed.

For facilities that have established baselines, the single baseline assigned to the closely integrated facilities will be a volume-weighted average of the individual facility baselines. The refiner should generate the appropriate baseline data and calculations and submit this information to EPA for approval. EPA will notify the refiner when the new closely integrated facilities baseline is approved.

## **V. Standards Applicable to Refiners and Importers of Conventional Gasoline (§ 80.101)**

### **A. Application of Compliance Baselines Under the Complex Model (§ 80.101(b)(3)(i))**

Clean Air Act section 211(k)(8), the "anti-dumping" section, requires EPA to promulgate regulations that maintain the quality of gasoline produced by each refinery, based on each refinery's 1990 gasoline quality, or

"baseline." The intent of this section is to prevent refiners from shifting "dirty" blendstocks from RFG production to conventional gasoline production. This section thereby prevents the degradation in overall quality of the nation's conventional gasoline as compared to gasoline quality in 1990.

The anti-dumping regulations, at Subpart E, implement this Clean Air Act section through conventional gasoline standards that are set in relation to each refinery's 1990 baseline gasoline quality. However, in the case of a refinery that produces a volume of gasoline during an averaging period that exceeds the refinery's 1990, or baseline, volume, § 80.101 requires that the excess volume meet anti-dumping standards that are set in relation to a baseline that reflects average U.S. gasoline quality in 1990, called the "statutory" baseline. Thus, under § 80.101(f) a refiner who operates a refinery with such excess gasoline volume during an averaging period is required to calculate a "compliance baseline" that adjusts the 1990 refinery baseline to reflect the excess volume over 1990 levels.

The rationale for using compliance baselines is the same for both simple and complex model standards. However, under § 80.101(b) compliance baselines currently apply only to simple model standards. EPA believes the absence of a



requirement to use compliance baselines for complex model standards was an error of omission when § 80.101 was promulgated, and as a result proposed requiring use of compliance baselines under the complex model. No comments were received on this proposal, and it is being finalized as proposed.

B. Elimination of the Baseline Adjustment by Refiners who also are Importers (§ 80.101(f)(3)) and Inclusion of a Prohibition to Prevent Import Gaming (§ 80.101(j))

Under the anti-dumping program all domestic refineries have individual baselines, while almost all imported gasoline currently is subject to the statutory baseline. However, the regulations include a provision, at § 80.101(f)(3), that requires an importer who also operates one or more refineries to use a baseline for imported gasoline that is the average of the individual refinery baselines. This requirement is intended to address a particular "gaming" concern: that a refiner who operates a refinery with a stringent refinery baseline (a baseline cleaner than the statutory baseline), would produce conventional gasoline that would be exported and thereby would be excluded from the refinery's compliance calculations, but that then would be imported under the less

stringent statutory baseline.

EPA now believes the requirement at § 80.101(f)(3) is unnecessary. There may be little risk of the form of gaming described above, in part due to the cost of transporting large volumes of gasoline out of the United States in order to be exported, and then transporting the same gasoline back into the United States in order to be imported. In addition, the current requirement provides a competitive advantage to refiner/importers who operate refineries with baselines that are dirtier than the statutory baseline. Further, EPA believes the gaming concern can be appropriately addressed by simply prohibiting parties from exporting and then importing gasoline for the purpose of obtaining a more favorable baseline for the gasoline.

For these reasons EPA proposed to eliminate the requirement for refiner/importers to calculate a special baseline for imported gasoline, and instead to prohibit the form of gaming described above. EPA received favorable comments on this proposal from three refiners and the change is being finalized as proposed.

#### C. Compliance Calculations for Oxygenates and Blendstocks (§ 80.101(g)(3))

The current regulations at § 80.101(g)(3) describe a

method for calculating the emissions performance of a blendstock based on the difference in emissions performance of a baseline gasoline and of a hypothetical blend of baseline gasoline and the blendstock. However, use of this method is limited to refineries that include only blendstocks in the refinery compliance calculations at a single facility, and it may not be used for a refinery that includes both blendstocks and finished gasoline in the refinery compliance calculations. Similarly, the current regulations do not include a clear procedure for calculating the emissions performance for oxygenate that is included in a refinery's compliance calculations under § 80.101(d)(4). For further discussion see the preamble to the NPRM at 62 FR 37363-37365 (July 11, 1997).

As a result, EPA proposed to revise § 80.101(g)(3) <sup>8</sup> to be appropriate for calculating the exhaust toxics and NOx emissions performance of all blendstocks, including oxygenates blended downstream of the refinery. The only comment on this proposal, submitted by a refinery association and an individual refiner, was that two terms

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<sup>8</sup> The July 11, 1997 NPRM proposed to reorganize § 80.101(g) and move the method for calculating the emissions performance of blendstocks from § 80.101(g)(3) to § 80.101(g)(5). Today's final rule modifies the current § 80.101(g)(3), but does not take final action on the reorganization of § 80.101(g) proposed in the NPRM. EPA intends to address the proposed reorganization of § 80.101(g) at the time it takes final action on the remaining provisions proposed in the NPRM.

were switched in one of the proposed equations. EPA agrees with this comment. As a result, with the exception of the revised equation the provision is being finalized as proposed.

Under this revised methodology, a refiner first determines the volume and properties of each batch of blendstock used. This determination requires the refiner to sample and test each blendstock batch, or in the case of oxygenates the normal oxygenate properties are used. The refiner then determines the blending rate, or volume fraction (F), of the blendstock.

Next, the refiner calculates the properties of a hypothetical gasoline that reflects the properties that result if gasoline having the refinery's "summer" or "winter" baseline values, as appropriate, are blended with the blendstock at the blending rate (F) previously determined. This calculation, which is a volume-weighted average of the blendstock properties and the gasoline properties,<sup>9</sup> is illustrated by the following example.

Assume a refiner blends 25,000 gallons of reformate into 300,000 of gasoline at a terminal. Assume the

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<sup>9</sup> Although certain properties, such as distillation and RVP, do not blend in an exact linear manner, EPA is promulgating this approach as a reasonable approximation since there is no other method to more accurately attribute the emissions effect of such downstream blending operations.

terminal-refinery is subject to the statutory baseline, that the reformat has a benzene content of 2.10 vol%, and that all of the gasoline produced using the reformat is classified as "summer." Under § 80.45(b)(2) the "summer" benzene statutory baseline is 1.53 vol%. The benzene content for the hypothetical gasoline blend ( $B_h$ ) is calculated as 1.57 vol% using the following equation:

$$B_h = \frac{(1.53 \times 300,000) + (2.10 \times 25,000)}{300,000 + 25,000}$$

In the case of the calculated values for sulfur and oxygen, the specific gravities of the blendstock and gasoline are included in the calculation. The measured specific gravity of the blendstock is used, however the regulations specify specific gravity values that must be used for "summer" and "winter" gasolines.

The exhaust toxics and NOx emissions performance of the hypothetical gasoline (HEP), and of a gasoline having the refinery's baseline values (BEP), are determined using the complex model. Finally, the refiner calculates the exhaust toxics and NOx emissions performance of the blendstock portion the hypothetical gasoline blend, called the "equivalent emissions performance" or EEP. The exhaust toxics and NOx equivalent emissions performance values for

the blendstock, together with the applicable blendstock volume, is included in the refinery's compliance calculations as a separate batch.

Consider again the example of the terminal-refiner using reformate, and assume the hypothetical gasoline blend, when evaluated under the summer complex model, had a NOx emissions performance of 685.6 mg/mi. Using the summer baseline emissions performance for NOx under § 80.45(b)(3) (660.0 mg/mi) and the blendstock volume fraction previously calculated (0.077), the blendstock's NOx equivalent emissions performance (EEP) is calculated to be 992.47 mg/mi using the following equation:

$$EEP = \frac{685.6 - (660.0 * (1 - 0.077))}{0.077}$$

The refiner in this example would include in the refinery's annual NOx emissions performance compliance calculations a batch with a volume of 25,000 gallons (the blendstock volume), and a NOx emissions performance of 992.47 mg/mi.

It should be noted that certain blendstocks, including oxygenates, when blended with gasoline may reduce exhaust toxics or NOx emissions performance under the complex model. In such cases, the calculated equivalent emissions

performance for the given blending fraction may yield a negative result under this methodology. Consider for example a hypothetical refiner with summer baseline fuel properties that provide a baseline for exhaust toxics (BEP) of 39.61 mg/mi under the complex model. If this refiner blends 6,000 gallons of ethanol into 125,000 gallons of gasoline over one summer month, resulting in a blendstock volume fraction of 0.046, the hypothetical fuel properties of that blend then result in exhaust toxics emissions performance (HEP) of 37.13 mg/mi. Using the equation provided in the regulations, the calculated equivalent emissions performance for exhaust toxics for this oxygenate blendstock is -14.3 mg/mi. Thus, this refiner would include a batch of 6,000 gallons at an exhaust toxics emissions level of -14.3 mg/mi in its compliance calculations.

EPA also is requiring refiners to keep certain records for blendstocks included in refinery compliance calculations using the calculation procedures described above. Section 80.104 currently requires refiners to keep records of the test results for blendstock batches included in refinery compliance calculations. However, there is no current record keeping requirement for documents that support the blendstock volume fraction (F). As a result, EPA is including a new requirement in § 80.104 that refiners who include blendstock batches in refinery compliance

calculations must keep records that reflect the volume of blendstocks blended and the volume of gasoline with which the blendstock is blended, the two terms used to calculate the blendstock volume fraction. This record keeping requirement was not specifically included in the proposal, but EPA believes it is a logical outgrowth of the proposal for calculating the exhaust toxics and NOx emissions of blendstocks. In the absence of this record keeping requirement EPA could be unable to verify a refiner has used the proper blendstock volume fraction to calculate the exhaust toxics and NOx emissions of blendstocks. Moreover, EPA believes this requirement normally would be met using documents that already are created and kept for commercial business purposes, i.e., documents that show movements of blendstock and gasoline to the blending tank and volume measurements of the blending tank.

D. Conventional Gasoline Complex Model Valid Range Limit as Standards (§ 80.101(b)(3)) and Emissions Performance Outside the Model Limits (§ 80.101(g)(8))

Both the Simple and the Complex Models include restrictions on the range of parameter values that may be used with these models. See §§ 80.42(c) and 80.45(f) for the Simple Model limits and the Complex Model limits,



respectively. These parameter range limits are included because the Simple and Complex models have not been shown to accurately predict emissions when parameter values outside the range limits are used. For this reason, §§ 80.42(c) and 80.45(f) state that the models may not be used for fuels with parameter values that are outside the valid range limits.

The Complex Model standards apply to both reformulated and conventional gasoline. However, the Complex Model specifies different valid range limits for reformulated versus conventional gasoline. Compare § 80.45(f)(1)(i) (Complex Model range limits for reformulated gasoline) with § 80.45(f)(1)(ii) (Complex Model range limits for conventional gasoline).

EPA always has considered the valid range limits to constitute standards that apply to reformulated and conventional gasoline. Gasoline subject to simple or Complex Model standards must be evaluated for compliance with these standards. Where gasoline has property values outside the valid range limits, it cannot be evaluated and, therefore, it is unlawful to produce and sell such gasoline.

For this reason EPA proposed the parameter values of conventional gasoline would have to be within the applicable Complex Model valid range limits when the gasoline is

certified by the refiner or importer. <sup>10</sup>

Several refiners commented that this would be unduly restrictive, particularly for a refinery with baseline properties close to or outside the valid range limits. A refinery's baseline properties reflect the average for each property for all gasoline produced at that refinery during 1990. However, a refinery's gasoline quality is not constant for any particular property, but varies across grades and during the year because of differences in season, crude oil, refinery turnarounds, and so on. As a result, if a refinery's 1990 baseline for a property is close to the valid range limit, it is reasonable to conclude that some significant percentage of the refinery's gasoline batches in 1990 had values for the property that were outside the valid range limit.

EPA has evaluated the proposed use of the valid range limits for conventional gasoline in light of the anti-dumping requirements for conventional gasoline under section 211(k)(8) of the Clean Air Act. The intent of the anti-

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<sup>10</sup> Under § 80.91(f)(2), refiners with baseline parameter values outside the valid range limits are allowed to use in the complex model parameter values that are somewhat outside the normal range limits for these parameters.

Today's final rule addresses the issue of complex model valid range limits for conventional gasoline, but does not address the valid range limits for RFG. EPA intends to address the proposal regarding valid range limits for RFG when it takes final action on the remaining provisions proposed in the NPRM.

dumping program is to maintain each refinery's gasoline quality at 1990 levels, in order to ensure there is no degradation in the overall quality of the nation's conventional gasoline. From this perspective each refiner should be allowed to continue producing the same types of conventional gasoline that were produced in 1990. However, the proposed imposition of valid range limits as per-gallon standards would force certain refiners to change their conventional gasoline quality relative to 1990 gasoline quality, particularly refiners with baseline parameter values close to the valid range limits.

As a result, one premise of the anti-dumping program (that refiners should be allowed to produce conventional gasoline with parameter values that are the same as for gasoline produced in 1990) conflicts with the limited ability of the Complex Model to reliably predict emissions when parameter values are outside the model's range limits.

EPA has decided to resolve this conflict by allowing refiners to produce individual batches of conventional gasoline with parameter values that are outside the Complex Model's valid range limits. EPA also is adopting additional requirements intended to minimize the volume of gasoline in this category and the risk of adverse environmental effects.

Thus, today's rule allows refiners to produce conventional gasoline without any per-batch restriction on

parameter values, regardless of the complex model's valid range limits. This gives refiners and importers the same flexibility to produce particular batches of conventional gasoline having widely disparate parameter values as they had in 1990.

To mitigate the potential to cause harm to the environment from removing this per-gallon batch restriction, EPA is adding two additional requirements for conventional gasoline compliance. First, a limit on annual average parameter values is included. This standard, which applies for each parameter, is equal to the conventional gasoline complex model valid range limit or the refinery's baseline values, whichever is less stringent.<sup>11</sup> EPA believes this standard is appropriate because it is consistent with the refinery's 1990 baseline value for the parameter, which reflects the refinery's 1990 annual average for the parameter.

Second, where a refiner has parameter test results for

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<sup>11</sup> For example, if a refinery's sulfur baseline is 1,050 ppm the annual average sulfur content of the refinery's conventional gasoline cannot exceed 1,050 ppm, which is less stringent than the conventional gasoline valid range limit for sulfur of 1,000 ppm. However, if a refinery's sulfur baseline is 900 ppm the annual average limit would be the less stringent valid range limit of 1,000 ppm. Similarly, if a refinery's baseline for E200 is 28% the annual average E200 of the refinery's conventional gasoline cannot be less than 28%, which is less stringent than the conventional gasoline lower valid range limit for E200 of 30%. This is in addition to the annual average requirement for exhaust toxics and NOx.

conventional gasoline that are outside the current valid range limits, the regulations specify whether the exhaust toxics and NOx emissions performance are calculated using the tested parameter value, or the valid range limit value. For each parameter, and for each emissions performance category, EPA has specified that the value which is most protective of the environment must be used.

For each parameter EPA evaluated whether higher exhaust toxics or NOx emissions result if the valid range limit is used, or if a value outside the valid range limit is used. In each case the value that gives the higher emissions must be used, as specified in a table included in the regulations at § 80.101(g)(8).<sup>12</sup>

EPA believes it is appropriate to use the Complex Model to predict emissions in this manner, even though in certain cases parameter values outside the valid range limits are used. Based on engineering judgment it is likely the direction of a parameter's effect on emissions at the valid range limit continues outside the valid range limit, even

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<sup>12</sup> Thus, for example, if a refiner has a tested sulfur value in excess of the valid range limit of 1,000 ppm, the exhaust toxics and NOx emissions performance must be calculated under the Complex Model using the tested sulfur value, because emissions values increase as sulfur values increase above 1,000 ppm. In contrast, if a refiner has a tested RVP value of less than the 6.4 psi lower valid range limit, the exhaust toxics and NOx emissions performance must be calculated using the 6.4 psi valid range limit, because emissions values decrease as RVP values decrease below 6.4 psi.

though the magnitude of the effect becomes more speculative as the value moves away from the range limit.

Thus, for example, the Complex Model reports that both exhaust toxics and NOx emissions increase as sulfur values increase from 950 ppm to 1,000 ppm, based on vehicle emissions test data. In addition, the Complex Model reports that exhaust toxics and NOx emissions continue to increase as sulfur values increase above the 1,000 ppm valid range limit. These outside-the-range-limit-results reflect only an assumption that emissions effects outside the range limit are similar to emissions results inside the range limit, and do not reflect vehicle emissions test data for fuels having higher sulfur values. However, engineering judgment supports the likelihood that actual exhaust toxics and NOx emissions continue to increase with sulfur values higher than 1,000 ppm.

The relative lack of confidence in the magnitude of the effect on emissions of parameter values outside the valid range limits justifies use of these environmentally conservative requirements, i.e., required use of the parameter value (valid range limit or tested) that results in the greater emissions. A refiner can avoid this "worst case" requirement by producing conventional gasoline batches with parameter values within the valid range limits. In addition, the requirement that parameter limits must be met

on an annual average basis, discussed above, will minimize the number of conventional gasoline batches that have parameter values outside the valid range limits, and the magnitude of the excursions for batches that do.

The current regulations include provisions for extending the conventional gasoline valid range limits for aromatics, olefins or benzene for certain refiners, at § 90.91(f)(2)(ii). In addition, EPA proposed to modify § 80.91(f)(2)(ii) to allow extended valid range limits for sulfur for certain refiners. These provisions apply to refiners with baseline values for parameter values that are outside the valid range limits, and allow such refiners to use the Complex Model to calculate the emissions of gasolines having properties outside the valid range limits.

However, in light of the changes being promulgated today that allow parties to calculate exhaust toxics and NOx emissions for any conventional gasoline batch without constraint of the Complex Model's valid range limits, the valid range extension provisions at § 80.91(f)(2)(ii) are unnecessary. As a result, EPA is eliminating these valid range extension provisions.

In the NPRM, EPA proposed to promulgate the complex Model valid range limits as standards for both conventional gasoline and RFG under the authority of § 211(k), but not under § 211(c). EPA believed that it was not necessary to

promulgate the valid range limits as standards under the authority of § 211(c) since the valid range limits are standards under the RFG and conventional gasoline regulations solely for the purpose of ensuring that the Complex Model will accurately predict emissions, and not for the independent purpose of achieving emissions reductions from the range limits themselves. EPA received adverse comment on the proposal to promulgate the valid range limits only under § 211(k). Since the issue of whether to promulgate the complex model valid range limits as standards under § 211(c) relates both conventional gasoline and RFG, EPA is reserving its decision on this issue until it takes final action on the remainder of the July 11, 1997 NPRM provisions, including the provisions relating the valid range limits as standards for RFG. EPA is, therefore, at this time adopting the above changes regarding the conventional gasoline Complex Model valid range limits solely under the authority of §§ 211(k) and 301.

## **VI. Environmental and Economic Impacts**

The Agency does not expect today's rule to have any adverse impact on the environment. Many of the revisions finalized today correct typographical and other minor errors



in the final rule. The provisions relating to use of the Complex Model are the result of a determination that the existing regulatory requirements may be revised without detriment to the environment. Economic impacts will be generally beneficial to affected parties due to the additional flexibility adopted in today's final rule. In particular, the deletion of the NOx per-gallon minimum standards for averaged RFG will relieve industry of a substantial cost burden, while the increased compliance surveys for NOx will ensure that the full environmental benefits of the NOx RFG standards are achieved. The environmental and economic impacts of the RFG and conventional gasoline programs are described in the Regulatory Impact Analysis supporting the December 1993 rule, which is available in Public Docket A-92-12 located at Room M-1500, Waterside Mall (ground floor), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460.

## **VII. Public Participation**

EPA solicited comments on the need to take the actions proposed in the July 11, 1997 NPRM, including the actions finalized today. EPA met with representatives of the

petroleum industry and other interested parties and considered their concerns and ideas in the development of this final rule. EPA also reviewed and considered all written comments on the provisions finalized today. Responses to comments are contained in the preamble to this final rule. All comments received by EPA are located in the EPA Air Docket, Docket A-97-03 (See ADDRESSES).

### **VIII. Regulatory Flexibility**

EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final rule. EPA has also determined that this rule will not have a significant economic impact on a substantial number of small entities.

Although the revisions to the reformulated and conventional gasoline regulations contained in today's final rule will affect small business refiners, importers and gasoline tank truck carriers, EPA has determined that this final rule will not have an adverse economic impact on these entities. Several actions taken in today's final rule will provide increased flexibility for all refiners and importers of gasoline, including small business refiners and importers. The deletion of the NOx per-gallon minimum

standards, in particular, will provide refiners and importers with greater flexibility to comply with the RFG regulations without compromising the environmental effect of the RFG program. In addition, this action eliminates the requirement for refiners of conventional gasoline who also import gasoline to calculate a special baseline for their imported product, and aids refiners and importers by allowing them to use a more flexible way of demonstrating compliance with the anti-dumping standards under the Complex Model. This action also provides additional affirmative defenses for truck carriers of motor vehicle fuel.

The EPA prepared a Regulatory Flexibility Analysis (RFA) for the final rule establishing standards for reformulated and conventional gasoline (59 FR 7716 (February 16, 1994)), which includes an analysis of the impact of the reformulated gasoline and anti-dumping regulations on small business entities. The RFA is in the docket for that rulemaking: EPA Air Docket A-92-2.

## **IX. Submission to Congress and the General Accounting Office**

Under 5 U.S.C. 801(a)(1)(A) as added by the Small Business Regulatory Enforcement Fairness Act of 1996, EPA

submitted a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the General Accounting Office prior to publication of the rule in today's Federal Register. This rule is not a "major rule" as defined by 5 U.S.C. 804(2).

**X. Executive Order 12866**

Under Executive Order 12866 [58 FR 51735 (October 4, 1993)], the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities;

(2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency;

(3) materially alter the budgetary impact of

entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or

(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this rule is not a significant action under the terms of the Executive Order 12866, and is therefore not subject to OMB review.

## **XI. Paperwork Reduction Act**

The information collection requirements proposed in the July 11, 1997 NPRM, including the provisions finalized today, have been submitted for approval to the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. An Information Collection Request (ICR) was prepared by EPA (ICR No. 1591.09) and a copy may be obtained from Sandy Farmer, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M St., SW. (mail code 2137); Washington, DC 20460, or by calling (202) 260-2740. Include the ICR and/or OMB number in any correspondence.

Most of the provisions finalized today make minor adjustments to the regulations and provide refiners and importers of gasoline with additional flexibility to comply with the regulations. Most of these changes will not result in any additional reporting, record keeping, or testing burdens. EPA is requiring refiners to keep certain records associated with revisions to the provisions for calculating the emissions performance of gasoline blendstocks. EPA, however, believes that this requirement normally will be met using documents that already are created and kept for commercial business purposes, i.e., documents that show movements of blendstock and gasoline to the blending tank and volume measurements of the blending tank. This requirement, therefore, is not expected to impose additional record keeping burdens on regulated parties.

This action also eliminates the per-gallon NOx minimum standards for Complex Model averaged RFG, and increases the initial number of compliance surveys required beginning in 1998 and thereafter from 50 to 70. EPA is eliminating the NOx per-gallon minimum standards because these standards may impose substantial costs in producing RFG without commensurate benefits to the environment. (See Preamble Section II). The NOx per-gallon minimum standards were included in the final rule as a tool to assure an even distribution of NOx benefits from area to area. However,

EPA believes that a less costly alternative, an increase in the number of required surveys, will achieve a similar level of assurance of even distribution of NOx benefits.

The actual number of surveys required to be conducted by industry is based on the initial number of required surveys adjusted to take into account areas that opt into the RFG program and any additional surveys required as a result of any survey ratchets. EPA estimates that the incremental cost burden of the additional 20 surveys will be roughly \$1,100,000 industry-wide (20 additional surveys at approximately \$55,000 each). With adjustments for opt-in and ratcheted areas, EPA estimates that the increase in the total number of surveys required in 1998 due to the regulatory change finalized today will be 39, at a cost of approximately \$2,145,000 industry-wide, or about \$14,300 per RFG refiner or importer ( $\$2,145,000 \div 150$  refiners/importers). The increased cost burden due to the additional survey requirements, however, will be more than offset by the elimination of the burden on industry imposed by the per-gallon NOx minimum standards.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize

technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, OPPE Regulatory Information Division; U.S. Environmental Protection Agency (2137); 401 M St., S.W.; Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th St., N.W., Washington, DC 20503, marked "Attention: Desk Officer for EPA." Comments are requested by [insert date 30 days after publication in the Federal Register.] Include the ICR number in any correspondence.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.



The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15.

## **XII. Unfunded Mandates Act**

Under § 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in expenditure by State, local, and tribal governments, in the aggregate; or by the private sector, of \$100 million or more. Under § 205, EPA must select the most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with the statutory requirements. Section 203 requires EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

EPA has determined that the action proposed today does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local or tribal governments in the aggregate, or to the private sector. This action has the effect of reducing burdens of the reformulated gasoline and anti-dumping programs on

regulated entities. Therefore, the requirements of the

Regulation of Fuels and Fuel Additives: Modifications to  
Standards and Requirements for Reformulated and Conventional  
Gasoline, page 51 of 73.

Unfunded Mandates Act do not apply to this action.

### **XIII. Statutory Authority**

The statutory authority for the actions adopted today  
is granted to EPA by §§ 114, 211(c) and (k), and 301 of the  
Clean Air Act, as amended; 42 U.S.C. 7414, 7545(c) and (k),  
and 7601.

### **List of Subjects in 40 CFR Part 80**

Environmental Protection, Air pollution control,  
Gasoline, Motor vehicle pollution, Incorporation by  
reference.

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Date

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Carol M. Browner,  
Administrator.

For the reasons set out in the preamble, part 80 of title 40 of the Code of Federal Regulations is amended as follows:

**PART 80--REGULATION OF FUELS AND FUEL ADDITIVES**

1. The authority citation for part 80 continues to read as follows:

**Authority:** Sections 114, 211, and 301(a) of the Clean Air Act as amended (42 U.S.C. 7414, 7545, and 7601(a)).

2. Section 80.2 is amended by revising paragraph (ss) to read as follows:

**§ 80.2 Definitions.**

\* \* \* \* \*

(ss) Tank truck means a truck and/or trailer used to transport or cause the transportation of gasoline or diesel fuel, that meets the definition of motor vehicle in section 216(2) of the Act.

\* \* \* \* \*

3. Section 80.28 is amended by adding paragraph (g)(1)(iii) to read as follows:

**§ 80.28 Liability for violations of gasoline volatility controls and prohibitions.**

\* \* \* \* \*

(g) \* \* \*

(1) \* \* \*

(iii) An oversight program under paragraph (g)(1)(ii) of this section need not include periodic sampling and testing of gasoline in a tank truck operated by a common carrier, but in lieu of such tank truck sampling and testing, the common carrier shall demonstrate evidence of an oversight program for monitoring compliance with the volatility requirements of § 80.27 relating to the transport or storage of gasoline by tank truck, such as appropriate guidance to drivers on compliance with applicable requirements and the periodic review of records normally received in the ordinary course of business concerning gasoline quality and delivery.

\* \* \* \* \*

4. Section 80.30 is amended by revising paragraph (g)(1)(i) to read as follows:

**§ 80.30 Liability for violations of diesel fuel control and prohibitions.**

\* \* \* \*

(g) \* \*

(1) \* \*

(i) Evidence of an oversight program conducted by the carrier, for monitoring the diesel fuel stored or transported by that carrier, such as periodic sampling and testing of the cetane index and sulfur percentage of incoming diesel fuel. Such an oversight program need not include periodic sampling and testing of diesel fuel in a tank truck operated by a common carrier, but in lieu of such tank truck sampling and testing the common carrier shall demonstrate evidence of an oversight program for monitoring compliance with the diesel fuel requirements of § 80.29 relating to the transport or storage of diesel fuel by tank truck, such as appropriate guidance to drivers on compliance with applicable requirements and the periodic review of records normally received in the ordinary course of business concerning diesel fuel quality and delivery; and

\* \* \* \*

5. Section 80.41 is amended by revising the introductory text and tables in paragraphs (d) and (f) and

paragraph (m) to read as follows:

**§ 80.41 Standards and Requirements for Compliance.**

\* \* \* \* \*

(d) Phase I complex model averaged standards . The Phase I "complex model" standards for compliance when achieved on average are as follows:

Phase I Complex Model Averaged Standards	
VOC emissions performance reduction (percent)	
Gasoline designated for VOC-Control Region 1: Standard	≥36.6
Per-Gallon Minimum	≥32.6
Gasoline designated for VOC-Control Region 2: Standard	≥17.1
Per-Gallon Minimum	≥13.1
Toxics air pollutants emissions performance reduction (percent):	≥16.5
NOx emissions performance reduction (percent):	≥1.5
Oxygen content (percent, by weight): Standard	≥2.1
Per-Gallon Minimum	≥1.5
Benzene (percent, by volume): Standard	≤0.95
Per-Gallon Maximum	≤1.30

\* \* \* \* \*

(f) Phase II complex model averaged standards . The Phase II "complex model" standards for compliance when achieved on average are as follows:

Phase II Complex Model Averaged Standards	
VOC emissions performance reduction (percent)	
Gasoline designated for VOC-Control Region 1: Standard Per-Gallon Minimum	≥29.0 ≥25.0
Gasoline designated for VOC-Control Region 2: Standard Per-Gallon Minimum	≥27.4 ≥23.4
Toxics air pollutants emissions performance reduction (percent):	≥21.5
NOx emissions performance reduction (percent)	
Gasoline designated as VOC-Controlled:	≥6.8
Gasoline not designated as VOC-Controlled:	≥1.5
Oxygen content (percent, by weight): Standard Per-Gallon Minimum	≥2.1 ≥1.5
Benzene (percent, by volume): Standard Per-Gallon Minimum	≤0.95 ≤1.30

\* \* \* \* \*

(m) Effect of NOx survey or survey series failure .

(1) On each occasion that a covered area fails a NOx emissions reduction survey or survey series conducted pursuant to § 80.68, the required average NOx emissions reductions for that covered area beginning in the year following the failure shall be increased in stringency by an additional 1.0%.

(2) In the event that a covered area for which

required NOx emissions reductions have been made more stringent passes all NOx emissions reduction surveys and survey series in two consecutive years, the required average NOx emissions reductions for that covered area beginning in the year following the second year of passed surveys and survey series shall be decreased in stringency by 1.0%.

(3) In the event that a covered area for which the required NOx emissions reductions have been made less stringent fails a subsequent NOx emissions reduction survey or survey series:

(i) The required average NOx emission reductions for that covered area beginning in the year following this subsequent failure shall be increased in stringency by 1.0%; and

(ii) The required NOx emission reductions for that covered area thereafter shall not be made less stringent regardless of the results of subsequent NOx emissions reduction surveys or survey series.

\* \* \* \* \*

6. Section 80.45 is amended by revising paragraphs (c)(1)(iv)(B), (c)(1)(iv)(D)( 12), (c)(1)(iv)(D)( 13); (d)(1)(iv)(B); and (f)(1)(ii) to read as follows:

**§ 80.45 Complex emissions model.**



\* \* \* \* \*

(c)\* \* \*

(1)\* \* \*

(iv)\* \* \*

(B) For fuels with E200, E300 and/or ARO levels outside the ranges defined in Table 6,  $Y_{voc}(t)$  shall be defined:

(1) For Phase I:

$$\begin{aligned}
 Y_{voc}(t) = & 100\% \times 0.52 \times [\exp(v_1(et))/\exp(v_1(b)) - 1] \\
 & + 100\% \times 0.48 \times [\exp(v_2(et))/\exp(v_2(b)) - 1] \\
 & + \{100\% \times 0.52 \times [\exp(v_1(et))/\exp(v_1(b))]\} \\
 & \times \{[(0.0002144 \times E200_{et}) - 0.014470] \times \Delta E200\} \\
 & + \{[(0.0008174 \times E300_{et}) - 0.068624 \\
 & - (0.000348 \times ARO_{et})] \times \Delta E300\} \\
 & + \{[(-0.000348 \times E300_{et}) + 0.0323712] \times \Delta ARO\}] \} \\
 & + \{100\% \times 0.48 \times [\exp(v_2(et))/\exp(v_2(b))]\} \\
 & \times \{[(0.000212 \times E200_{et}) - 0.01350] \times \Delta E200\} \\
 & + \{[(0.000816 \times E300_{et}) - 0.06233 \\
 & - (0.00029 \times ARO_{et})] \times \Delta E300\} \\
 & + \{[(-0.00029 \times E300_{et}) + 0.028204] \times \Delta ARO\}] \}
 \end{aligned}$$

(2) For Phase II:

$$\begin{aligned}
 Y_{voc}(t) = & 100\% \times 0.444 \times [\exp(v_1(et))/\exp(v_1(b)) - 1] \\
 & + 100\% \times 0.556 \times [\exp(v_2(et))/\exp(v_2(b)) - 1]
 \end{aligned}$$

$$\begin{aligned}
& + \{100\% \times 0.444 \times [\exp(v_1(et))/\exp(v_1(b))]\} \\
& \times \{[(0.0002144 \times E200_{et}) - 0.014470] \times \Delta E200\} \\
& + \{[(0.0008174 \times E300_{et}) - 0.068624 \\
& - (0.000348 \times ARO_{et})] \times \Delta E300\} \\
& + \{[(-0.000348 \times E300_{et}) + 0.0323712] \times \Delta ARO\}] \} \\
& + \{100\% \times 0.556 \times [\exp(v_2(et))/\exp(v_2(b))]\} \\
& \times \{[(0.000212 \times E200_{et}) - 0.01350] \times \Delta E200\} \\
& + \{[(0.000816 \times E300_{et}) - 0.06233 \\
& - (0.00029 \times ARO_{et})] \times \Delta E300\} \\
& + \{[(-0.00029 \times E300_{et}) + 0.028204] \times \Delta ARO\}] \} \\
& * \quad * \quad * \quad * \quad * \\
& (D) \quad * \quad * \quad *
\end{aligned}$$

(12) If the E300 level of the target fuel is less than 72 percent, then  $\Delta E300$  shall be set equal to  $(E300 - 72 \text{ percent})$ .

(13) If the E300 level of the target fuel is greater than 94 volume percent and  $(79.75 + (0.385 \times ARO))$  also is greater than 94, then  $\Delta E300$  shall be set equal to  $(E300 - 94 \text{ volume percent})$ . If the E300 level of the target fuel is greater than 95 volume percent and  $(79.75 + (0.385 \times ARO))$  also is greater than 94, then  $\Delta E300$  shall be set equal to 1 volume percent.

$$\begin{aligned}
& * \quad * \quad * \quad * \quad * \\
& (d) * \quad * \quad * \\
& (1) * \quad * \quad *
\end{aligned}$$

(iv)\* \* \*

(B) For fuels with SUL, OLE, and/or ARO levels outside the ranges defined in Table 7 of paragraph (d)(1)(iv)(A) of this section,  $Y_{\text{nox}}(t)$  shall be defined as:

(1) For Phase I:

$$\begin{aligned} Y_{\text{Nox}}(t) = & 100\% \times 0.82 \times [\exp(n_1(et))/\exp(n_1(b)) - 1] \\ & + 100\% \times 0.18 \times [\exp(n_2(et))/\exp(n_2(b)) - 1] \\ & + \{100\% \times 0.82 \times [\exp(n_1(et))/\exp(n_1(b))] \\ & \times [ \{ [(-0.00000133 \times \text{SUL}_{et}) + 0.000692] \times \Delta\text{SUL} \} \\ & + \{ [(-0.000238 \times \text{ARO}_{et}) + 0.0083632] \times \Delta\text{ARO} \} \\ & + \{ [(0.000733 \times \text{OLE}_{et}) - 0.002774] \times \Delta\text{OLE} \} ] \} \\ & + \{100\% \times 0.18 \times [\exp(n_2(et))/\exp(n_2(b))] \\ & \times [ \{0.000252 \times \Delta\text{SUL} \} + \\ & + \{ [(-0.0001599 \times \text{ARO}_{et}) + 0.007097] \times \Delta\text{ARO} \} \\ & + \{ [(0.000732 \times \text{OLE}_{et}) - 0.00276] \times \Delta\text{OLE} \} ] \} \end{aligned}$$

(2) For Phase II:

\* \* \* \* \*

(f)\* \* \*

(1)\* \* \*

(ii) For conventional gasoline:

Fuel property	Acceptable range
Oxygen.....	0.00 - 4.0 weight percent.
Sulfur.....	0.0 - 1000.0 parts per million by weight.
RVP.....	6.4 - 11.0 pounds per square inch.
E200.....	30.0 - 70.0 evaporated percent.
E300.....	70.0 - 100.0 evaporated percent.
Aromatics.....	0.0 - 55.0 volume percent.
Olefins.....	0.0 - 30.0 volume percent.
Benzene.....	0.0 - 4.9 volume percent.

\* \* \* \* \*

7. In § 80.67, paragraph (e)(4) is removed.

8. Section 80.68 is amended by revising paragraphs (b)(1)(iv), (c)(3), and (c)(13)(v)(H) and (L) to read as follows:

**§ 80.68 Compliance Surveys.**

\* \* \* \* \*

(b)\* \* \*

(1)\* \* \*

(iv) 70 surveys shall be conducted in 1998 and thereafter.

\* \* \* \* \*

(c)\* \* \*

(3) A VOC survey and a NOx survey shall consist of any survey conducted during the period June 1 through September 15.

\* \* \* \* \*

(13)\* \* \*

(v)\* \* \*

(H) The results of the analyses of complex model samples for oxygenate type and oxygen weight percent, benzene, aromatic hydrocarbon, and olefin content, E-200, E-300, and RVP, the calculated NOx and toxics emissions reduction percentage, and for each survey conducted during the period June 1 through September 15, the calculated VOC emissions reduction percentage;

\* \* \* \* \*

(L)The average toxics emissions reduction percentage for simple model samples and the percentage for complex model samples, the average benzene and oxygen percentages, and for each survey conducted during the period June 1 through September 15, the average VOC emissions reduction percentage for simple model samples and the percentage for complex model samples, and the average NOx emissions reduction percentage for all complex model samples;

\* \* \* \* \*

9. Section 80.77 is amended by revising paragraph (g)(2)(iv)(B) to read as follows:

**§ 80.77 Product Transfer Documentation.**

\* \* \* \* \*

(g)\* \* \*

(2)\* \* \*

(iv)\* \* \*

(B) Beginning on January 1, 1998, for VOC-controlled gasoline, the VOC emissions performance minimum; and

\* \* \* \* \*

10. Section 80.78 is amended by revising paragraph (a)(1)(v)(C) to read as follows:

**§ 80.78 Controls and prohibitions on reformulated gasoline.**

(a)\* \* \*

(1)\* \* \*

(v)\* \* \*

(C)Unless each gallon of such gasoline that is subject to complex model standards has a VOC emissions reduction percentage which is greater than or equal to the applicable minimum specified in § 80.41.

\* \* \* \* \*

11. Section 80.79 is amended by revising the introductory text of paragraph (c) and paragraph (c)(1), and adding paragraph (c)(3) to read as follows:

**§ 80.79 Liability for violations of the prohibited activities.**

\* \* \* \* \*

(c) Quality assurance program . In order to demonstrate an acceptable quality assurance program for reformulated gasoline at all points in the gasoline distribution network, other than at retail outlets and wholesale purchaser-consumer facilities, a party must present evidence of the following.

(1) Of a periodic sampling and testing program to determine if the applicable maximum and/or minimum standards for oxygen, benzene, RVP, or VOC emission performance are met.

\* \* \* \* \*

(3) An oversight program conducted by a carrier under paragraph (c)(1) of this section need not include periodic sampling and testing of gasoline in a tank truck operated by a common carrier, but in lieu of such tank truck sampling and testing the common carrier shall demonstrate evidence of an oversight program for monitoring compliance with the

requirements of section 80.78 relating to the transport or storage of gasoline by tank truck, such as appropriate guidance to drivers on compliance with applicable requirements and the periodic review of records normally received in the ordinary course of business concerning gasoline quality and delivery.

12. Section 80.91 is amended by revising paragraphs (e)(1)(iii) and (f)(2)(ii) to read as follows:

**§ 80.91 Individual baseline determination.**

\* \* \* \* \*

(e)\* \* \*

(1)\* \* \*

(iii) For facilities determined to be closely integrated gasoline producing facilities and for which EPA has granted a single set of baseline fuel parameter values per this paragraph (e)(1)(i):

(A) All reformulated gasoline and anti-dumping standards shall be met by such closely integrated facilities on an aggregate basis;

(B) A combined facility registration shall be submitted under §§ 80.76 and 80.103; and

(C) Record keeping requirements under §§ 80.74 and



80.104 and reporting requirements under §§ 80.75 and 80.105 shall be met for such closely integrated facilities on an aggregate basis.

\* \* \* \* \*

(f) \* \* \*

(2) \* \* \*

(ii) [reserved]

\* \* \* \* \*

13. Section 80.101 is amended by:

a) Revising paragraph (b)(3);

b) Revising paragraphs (f)(3) and (f)(4);

c) Revising paragraph (g)(3) and adding (g)(8); and

d) Adding paragraph (j).

**§ 80.101 Standards applicable to refiners and importers.**

\* \* \* \* \*

(b) \* \* \*

(3) Complex model standards .

(i) Annual average levels of exhaust toxics emissions and NOx emissions, weighted by volume for each batch and calculated using the applicable complex model under § 80.45, shall not exceed the refiner's or importer's compliance baseline for exhaust toxics and NOx emissions, respectively.

(ii) Annual average levels of RVP, benzene, aromatics, olefins, sulfur, E200 and E300 shall not be greater than the conventional gasoline complex model valid range limits for the parameter under § 80.45(f)(1)(ii), or the refiner or importer's annual 1990 baseline for the parameter if outside the valid range limit, whichever is greater.

\* \* \* \* \*

(f) Compliance baseline determination .

\* \* \* \* \*

(3) [Reserved]

(4) Any compliance baseline under paragraph (f)(1) of this section shall be adjusted for each averaging period as follows:

\* \* \* \* \*

(g) Compliance calculations .

\* \* \* \* \*

(3) Exhaust toxics and NOx emissions performance of a blendstock batch shall be determined as follows:

(i) Determine the volume and properties of the blendstock.

(ii) Determine the blendstock volume fraction (F) based on the volume of blendstock, and the volume of gasoline with which the blendstock is blended, using the

following equation:

$$F = \frac{V_b}{V_b + V_g}$$

Where:

F = blendstock volume fraction

V<sub>b</sub> = volume of blendstock

V<sub>g</sub> = volume of gasoline with which the blendstock is blended.

(iii) For each parameter required by the complex model, calculate the parameter value that would result by combining, at the blendstock volume fraction (F), the blendstock with a gasoline having properties equal to the refinery's or importer's baseline, using the following formula:

$$CP_j = \frac{(BAP_j \times V_g) + (BLP_j \times V_b)}{V_g + V_b}$$

where

CP<sub>j</sub> = calculated value for parameter j

BAP<sub>j</sub> = baseline value for parameter j

BLP<sub>j</sub> = value of parameter j for the blendstock or

oxygenate

j = each parameter required by the complex model

(A) The baseline value shall be the refinery's "summer" or "winter" baseline, based on the "summer" or "winter" classification of the gasoline produced as determined under paragraphs (g)(5) or (g)(6) of this section. In the case of a refinery that is aggregated under paragraph (h) of this section, the refinery baseline shall be used, and not the aggregate baseline.

(B) The sulfur content and oxygen wt% computations under paragraph (g)(3)(iii) of this section shall be adjusted for the specific gravity of the gasoline and blendstock using specific gravities of 0.749 for "summer" gasoline and of 0.738 for "winter" gasoline.

(C) In the case of "summer" gasoline, where the blendstock is ethanol and the volume fraction calculated under paragraph (g)(3)(ii) is equal to or greater than 0.015, the value for RVP calculated under paragraph (g)(3)(iii) of this section shall be 1.0 psi greater than the RVP of the gasoline with which the blendstock is blended.

(iv) Using the summer or winter complex model, as appropriate, calculate the exhaust toxics and NOx emissions performance, in mg/mi, of:

(A) A hypothetical gasoline having properties equal to those calculated in paragraph (g)(3)(iii) of this section (HEP); and

(B) A gasoline having properties equal to the refinery's or importer's baseline (BEP).

(v) Calculate the exhaust toxics and NOx equivalent emissions performance (EEP) of the blendstock, in mg/mi, using the following equation:

$$EEP_j = \frac{HEP_j - (BEP_j * (1 - F))}{F}$$

where

EEP<sub>j</sub> = equivalent emissions performance of the blendstock for emissions performance j

BEP<sub>j</sub> = emissions performance j of a gasoline having the properties of the refinery's baseline.

HEP<sub>j</sub> = emissions performance j of a hypothetical blendstock/gasoline blend

F = blendstock volume fraction

j = exhaust toxics or NOx emissions performance

(vi) For each blendstock batch, the volume, and exhaust toxics and NOx equivalent emissions performance (EEP) shall be included in the refinery's compliance

calculations.

\* \* \* \* \*

(8) Emissions performance of conventional gasoline with parameters outside the complex model valid range limits .

Notwithstanding the provisions of § 80.45(f)(2), in the case of any parameter value that does not fall within the complex model range limit in § 80.45(f)(1)(ii), the refiner or importer shall determine the emissions performance of the

batch using the following parameter values:

Parameter Outside the Range Limit	Parameter Value to Use for Calculating	
	Exhaust Toxics	NOx
sulfur	test value <sup>1</sup>	test value <sup>1</sup>
RVP (summer only) < 6.4 psi	6.4 psi	6.4 psi
> 11.0 psi	test value <sup>1</sup>	test value <sup>1</sup>
aromatics	test value <sup>1</sup>	test value <sup>1</sup>
olefins	test value <sup>1</sup>	test value <sup>1</sup>
benzene	test value <sup>1</sup>	test value <sup>1</sup>
E200 < 30%	test value <sup>1</sup>	30%
> 70%	70%	test value <sup>1</sup>
E300 < 70%	test value <sup>1</sup>	test value <sup>1</sup>
<sup>1</sup> Test value is the value for a parameter determined pursuant to paragraph 80.101(i)(1)(i) of this section.		

\* \* \* \* \*

(j) Evasion of standards through exporting and importing gasoline . Notwithstanding the requirements of this section, no refiner or importer shall export gasoline and import the same or other gasoline for the purpose of

evading a more stringent baseline requirement.

12. Section 80.104 is amended by adding paragraph (a)(2)(xi) to read as follows:

**§ 80.104 Recordkeeping requirements.**

\* \* \* \* \*

(a) \* \* \*

(2) \* \* \*

(xi) In the case of blendstocks that are included in refinery compliance calculations using the procedures under § 80.101(g)(3), documents that reflect the volume of blendstock and the volume of gasoline with which the blendstock is blended.

\* \* \* \* \*